



## Fiscal Year 2020 (FY20) Data Notes

For Fiscal Year 2020 (FY20), 77 countries meet the income parameters for MCC candidacy (with 63 being candidates and 14 meeting the income parameters but that are statutorily prohibited from receiving assistance). A country is determined to be an MCC candidate if its per capita income falls within predetermined parameters set by Congress and it is not subject to certain restriction on U.S. foreign assistance. Those parameters are that the country must be classified as either low income or lower middle income by the World Bank (which means it is estimated to have a Gross National Income (GNI) per capita (Atlas Method) less than the World Bank's lower middle income country threshold of \$3,995 in FY20, as published in the World Bank's July release of income data.<sup>1</sup> See the [FY20 Candidate Country Report](#) for additional information.

For FY20, MCC is continuing to use the historical ceiling for eligibility as set by the World Bank's International Development Association (IDA) (often referred to as the 'Historical IDA Threshold') to divide the 77 countries into two income groups for the purpose of comparative analysis on the policy performance indicators. These two income groups include: 1) countries whose GNI per capita is less than or equal to \$1,925 in FY20 and 2) those countries whose GNI per capita falls between \$1,926 and \$3,995 in FY20. For additional information, see the [FY20 Selection Criteria and Methodology Report](#).

## Political Rights

*Source: Freedom House*

Freedom House publishes a 1-7 scale (where 7 is "least free" and 1 is "most free") for Political Rights. Since its *Freedom in the World 2006* report, Freedom House has also released data using a 0-40 scale for Political Rights (where 0 is "least free" and 40 is "most free"). The Political Rights indicator is based on a 10 question checklist grouped into the three subcategories: Electoral Process (3 questions), Political Pluralism and Participation (4 questions), and Functioning of Government (3 questions). Points are awarded to each question on a scale of 0 to 4, where 0 points represents the fewest rights and 4 represents the most rights. The only exception to the addition of 0 to 4 points per checklist item is Additional Discretionary Question B in the Political Rights Checklist, for which 1 to 4 points are *subtracted* depending on the severity of the situation. The highest number of points that can be awarded to the Political Rights checklist is 40 (or a total of up to 4 points for each of the 10 questions). Table 1 illustrates how the 1-7 scale used prior to Fiscal Year 2007 (FY07) corresponds to the new 0-40 scale.

New Scale	Old Scale
36-40	1
30-35	2
24-29	3
18-23	4
12-17	5
6-11	6
0-5	7

MCC adjusts the years on the x-axis of the Country Scorecards to correspond to the period of time covered by the *Freedom in the World* publication. For instance, FY20 Political Rights data come from *Freedom in the World 2019* and are labeled as 2018 data on the scorecard (the year Freedom House is reporting on in its 2019 report.)

## Civil Liberties

*Source: Freedom House*

Freedom House publishes a 1-7 scale (where 7 is “least free” and 1 is “most free”) for Civil Liberties. Since its *Freedom in the World 2006* report, Freedom House has also released data using a 0-60 scale (where 0 is “least free” and 60 is “most free”) for Civil Liberties. The Civil Liberties indicator is based on a 15 question checklist grouped into four subcategories: Freedom of Expression and Belief (4 questions), Associational and Organizational Rights (3 questions), Rule of Law (4 questions), and Personal Autonomy and Individual Rights (4 questions). Points are awarded to each question on a scale of 0 to 4, where 0 points represents the fewest liberties and 4 represents the most liberties. The highest number of points that can be awarded to the Civil Liberties checklist is 60 (or a total of up to 4 points for each of the 15 questions). Table 2 illustrates how the 1-7 scale used prior to FY07 corresponds to the new 0-60 scale.

New Scale	Old Scale
53-60	1
44-52	2
35-43	3
26-34	4
17-25	5
8-16	6
0-7	7

MCC adjusts the years on the x-axis of the Country Scorecards to correspond to the period of time covered by the *Freedom in the World* publication. For instance, FY20 Civil Liberties data come from *Freedom in the World 2019* and are labeled as 2018 data on the scorecard (the year Freedom House is reporting on in its 2019 report.)

## Control of Corruption, Government Effectiveness, Rule of Law, and Regulatory Quality

**MCC Normalized Score = WGI Score – median score**

*Source: World Bank/Brookings Institution*

For ease of interpretation, MCC has adjusted the median for each of the two scorecard income pools to zero for all of the Worldwide Governance Indicators. Country scores are calculated by taking the difference between actual scores and the median. For example, the unadjusted median for the scorecard pool of countries with a Gross National Income (GNI) per capita between \$1,926 and \$3,995 on Control of Corruption is -0.52 in FY20. In order to set the median at zero, we simply add 0.52 to each country's score (the same thing as subtracting a negative 0.52). Therefore, as an example, Angola's FY20 Control of Corruption score, which was originally -1.14, has been adjusted to -0.63.

The FY20 scores come from the 2019 update of the Worldwide Governance Indicators dataset and largely reflect performance in calendar year 2018. Since the release of the 2006 update of the Worldwide Governance Indicators, the indicators are updated annually.<sup>2</sup> Each year, the World Bank and Brookings Institution also make minor backward revisions to the historical data.

## Freedom of Information

**MCC FOI Score = (Press) – (FOIA in place) + (Key Internet Controls)**

*Source: Reporters without Borders (RSF), Freedom House, Centre for Law and Democracy / Access Info Europe*

This indicator uses a country's score on RSF's World Press Freedom Index (Press) as the base. In FY20, MCC uses RSF's 2019 World Press Freedom Index, which covers events in 2018. A country's base score may improve based on data from the Global Right to Information Rating. In FY20, MCC uses Centre for Law and Democracy / Access Info Europe's Global Right to Information Rating (RTI) from 2019. A country's score is improved by 4 points if they have a Freedom of Information law enacted. Data from Freedom House's Key Internet Controls is used to penalize some countries' base scores. A country's score is penalized 1 point for each internet control in place, for a total penalty of up to 9 points. For FY20, MCC uses Key Internet Control data from the 2019 Freedom of the Net report produced by Freedom House.

On this index, lower is better.

*Note regarding construction of missing data:* Prior to FY20, MCC utilized Freedom House’s Freedom of the Press scores for its Press component. In 2018, however, Freedom House stopped publishing Freedom of the Press, and MCC selected RSF’s World Press Freedom Index as a replacement. Both indices measure similar concepts on an identical scale (0-100, with lower scores being better). However, because MCC is using a different indicator for Press in FY20, current year data on MCC’s scorecard is not comparable to data found on prior year MCC scorecards.

In addition, the RSF index does not report data for all countries that had data reported by Freedom House. As such, MCC is using the most recent Freedom House “Freedom of the Press 2017” data for the five countries that had Freedom House data, but that are missing RSF data. Although RSF uses the same 0-100 scale for its data, the distribution of RSF country scores sits systematically lower on the scale than does Freedom House’s. To account for this mismatch, MCC normalizes Freedom House scores for the five countries in the following manner:

- MCC identifies each country’s percentile rank in the Freedom House global dataset, and then finds the score that would be at the corresponding percentile in the global RSF dataset, and assigns that score to the country. Once this matching has been completed for each of the missing countries, and these normalized scores are added to the global RSF dataset, MCC then uses these scores as “Press” in the above equation to calculate the Freedom of Information scores and percentile ranks for each income group. For example, Solomon Islands has a Freedom House score of 27 in 2017, which puts in at the 76<sup>th</sup> percentile in the global Freedom House dataset. The score at the 76<sup>th</sup> percentile of the global RSF dataset is 24.09. Therefore Solomon Island’s normalized Press score is 24.09.

## Health Expenditures

*Source: WHO*

This indicator measures public expenditure on health as a percent of gross domestic product (GDP). MCC relies on the World Health Organization (WHO) for data on public health expenditure. The WHO estimates domestic general government health expenditure (GGHE-D) — the sum of current outlays by government entities to purchase health care services and goods — in million national currency units (million NCU) and in current prices. GDP data are primarily drawn from the United Nations National Accounts statistics.

Prior to FY19, MCC utilized a slightly different indicator, which was discontinued by the WHO. Because MCC started using a different indicator from the WHO in FY19, both FY19 and FY20 data on MCC’s scorecard are not comparable to data found on MCC scorecards prior to FY19.

The FY20 scores come from the 2019 update of the Global health expenditure database and largely reflect performance in calendar year 2016.

## Primary Education Expenditures

MCC uses the most recent data point in the past six years <sup>3</sup>

*Source: UNESCO Institute of Statistics*

This indicator measures public expenditure on primary education as a percent of GDP. MCC relies on the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics as its source. Specifically, MCC uses the indicator named “Government expenditure on primary education as a percentage of GDP (%).” For FY20, MCC first determines if a country has a value reported by UNESCO for 2013-2018. If so, the most recent data available within those years are used. If a country does not have UNESCO data at any point from 2013-2018, it does not receive an FY20 score.

For UNESCO data, the GDP estimates used in the denominator are provided to UNESCO by the World Bank. As better data become available, UNESCO makes backward revisions to historical data.

## Immunization Rates

**MCC Immunization Rate =  $[0.5 \times \text{DPT3}] + [0.5 \times \text{MCV1}]$**

*Source: WHO/UNICEF*

MCC relies on official WHO/United Nations Children’s Fund (UNICEF) estimates for all immunization data. MCC uses the simple average of the 2018 DPT3 coverage rate and the 2018 measles (MCV) coverage rate to calculate FY20 country scores. If a country is missing data for either DPT3 or Measles, it does not receive an index value. The same rule is applied to historical data. As better data become available, WHO/UNICEF make backward revisions to the historical data. Countries with GNI per capita less than or equal to \$1,925 in FY20 must have immunization rates (as defined above) greater than 90% to pass this indicator. Countries with GNI per capita between \$1,926 and \$3,995 in FY20 must score above the median among countries in this scorecard income pool.

## Girls’ Primary Education Completion <sup>4</sup>

MCC uses the most recent data point in the past six years

*Source: UNESCO Institute of Statistics*

MCC draws upon data from UNESCO’s Institute of Statistics as its exclusive source of data for this indicator. Specifically, MCC uses the indicator named “Gross intake ratio to the last grade of primary education, female (%).” To receive an FY20 score, countries must have a 2013–2018 UNESCO value. MCC

uses the most recent year available, that is, MCC uses the most recent data from the past six years. If a country does not have UNESCO data at any point from 2013-2018, it does not receive an FY20 score. As better data become available, UNESCO makes backward revisions to its historical data.

Girls' Primary Education Completion is measured as the gross intake ratio in the last grade of primary, which is the total number of female students enrolled in the last grade of primary (regardless of age), minus the number of female students repeating the last grade of primary, divided by the total female population of the entrance age of the last grade of primary. This indicator was selected since data limitations preclude adjusting the girls' primary education completion rate for students who drop out during the final year of primary school. Therefore, UNESCO's estimates should be taken as an upper-bound estimate of the actual female primary completion rate. Because the numerator may include late entrants and over-age children who have repeated one or more grades of primary school but are now graduating, as well as children who entered school early, it is possible for the primary completion rate to exceed 100 percent.

## Girls' Secondary Education Enrollment <sup>5</sup>

MCC uses the most recent data point in the past six years

*Source: UNESCO*

MCC draws upon data from UNESCO's Institute of Statistics as its exclusive source of data. Specifically, MCC uses the indicator named "Gross enrolment ratio, lower secondary, female (%)." To receive an FY20 score, countries must have a 2013 – 2018 UNESCO value on "gross enrolment ratio, lower secondary (female)." MCC uses the most recent year available that is, MCC uses the most recent data from the past six years. If a country does not have UNESCO data at any point from 2013-2018, it does not receive an FY20 score. As better data become available, UNESCO makes backward revisions to its historical data.

The Girls' Secondary Education Enrollment Ratio indicator measures the number of female pupils enrolled in lower secondary school (regardless of age), expressed as a percentage of the total female population of the standard age of enrollment for lower secondary education. Lower secondary school is defined as a program typically designed to complete the development of basic skills and knowledge which began at the primary level. Because the numerator may include late entrants and over-age children, as well as children who entered school early, it is possible for the secondary enrollment rate to exceed 100 percent.

## Natural Resource Protection

*Source: CIESIN/YCELP*

In creating the indicator used for the FY20 data, Columbia University's Center for International Earth Science Information Network (CIESIN) and the Yale Center for Environmental Law and Policy (YCELP)

relied on 2019 eco-region protection data from United Nations Environment Programme-World Conservation Monitoring Center. As better data become available, CIESIN and YCELP make backward revisions to historical data.

## Child Health

**CIESIN/YCELP's Child Health Score = [ 0.33 x Child Mortality ] + [ 0.33 x Access to Water ] + [ 0.33 x Access to Sanitation ]**

*Source: CIESIN/YCELP*

In creating the index used for the FY20 data, Columbia University's Center for International Earth Science Information Network (CIESIN) and the Yale Center for Environmental Law and Policy (YCELP) relied on 2017 child mortality data ages 1-4 (4q1), 2017 water access data, and 2017 sanitation access data. If no 2017 updates were available, previous data were applied. Each of the three components (child mortality, access to water, and access to sanitation) is equally weighted (33.3%) in the overall index. Country scores are reported as 2017 data on the FY20 MCC Country Scorecards. As better data become available, CIESIN and YCELP make backward revisions to historical data. In FY20, CIESIN changed its source of Child Mortality data from the UN Population Division's World Population Prospects (WPP data) to the United Nations Inter-agency Group for Child Mortality Estimation (IGME data) since IGME updates its data more frequently than WPP. As such, some variation in FY20 Child Health data could be attributed to the new underlying data source.

## Fiscal Policy

**MCC's Fiscal Policy Score = (2016 + 2017 + 2018) / 3**

*Source: IMF*

MCC relies exclusively on the International Monetary Fund's (IMF) World Economic Outlook (WEO) database for Fiscal Policy data. The fiscal policy indicator measures general government net lending/borrowing as a percent of GDP, averaged over a three year period. Net lending / borrowing is calculated as revenue minus total expenditure. The FY20 score averages the annual data of 2016, 2017 and 2018. As better data become available, the IMF makes backward revisions to its historical data.

The IMF published the net lending/borrowing series for the first time in the 2010 WEO database.

## Inflation

*Source: IMF*

MCC relies exclusively on the IMF's WEO database for inflation data. WEO inflation data reflect annual percentage change averages for the year, not end-of-period data. FY20 data refer to the 2018 inflation rate. As better data become available, the IMF makes backward revisions to its historical data.

## Trade Policy

*Source: Heritage Foundation*

MCC relies on the Trade Freedom component of the Heritage Foundation's annual *Index of Economic Freedom* for its Trade Policy indicator. The Heritage Foundation scale ranges from 0 to 100, where 0 represents the highest level of protectionism and 100 represents the lowest level of protectionism. FY20 data come from the 2020 *Index of Economic Freedom* and are treated as 2019 values on the scorecard<sup>6</sup>. As better data become available, the Heritage Foundation makes backward revisions to its historical data.

The equation used to convert tariff rates and non-tariff barriers (NTB) into the 0-100 scale is presented below:

Heritage Foundation's Trade Policy<sub>i</sub> Score =  $\{[(\text{Tariff}_{\max} - \text{Tariff}_i) \div (\text{Tariff}_{\max} - \text{Tariff}_{\min})] \times 100\} - \text{NTB}_i$

Trade Policy<sub>i</sub> represents the trade freedom in country i,  $\text{Tariff}_{\max}$  and  $\text{Tariff}_{\min}$  represent the upper and lower bounds (50 and 0 percent respectively), and  $\text{Tariff}_i$  represents the weighted average tariff rate in country i. The result is multiplied by 100 to convert it to a percentage. If applicable to country i, an NTB penalty of 5, 10, 15, or 20 points is then subtracted from the base score, depending on the pervasiveness of NTBs.

## Business Start-Up

MCC's Business Start-up Score =  $[0.5 \times (\text{Normalized Days to Start a Business})] + [0.5 \times (\text{Normalized Cost to Start a Business})]$

*Source: World Bank*

The Business Start-Up index is calculated as the average of two indicators from the World Bank's *Doing Business* survey:

- **Days to Start a Business:** This component measures the number of calendar days it takes to comply with all procedures that are officially required for male and female entrepreneurs to start up and formally operate an industrial or commercial business. These include obtaining all necessary licenses and permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities.
- **Cost of Starting a Business:** This component measures the cost of starting a business as a percentage of country's per capita income. The World Bank records all procedures that are



officially required for male and female entrepreneurs to start up and formally operate an industrial or commercial business. These include obtaining all necessary licenses and permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities.

Since the two sub-components of the Business Start-Up index have different scales, MCC normalizes the indicators to create a common scale for each of them.

### **MCC Methodology to Normalize Days or Cost to Start a Business:**

- *Normalized Days (or Cost) to Start a Business = (Maximum observed value – Country X’s raw score) ÷ (Maximum observed value – Minimum observed value)*

For example, to calculate Mozambique’s normalized score on the Days to Start a Business indicator, we would first subtract Mozambique’s raw score (17) from the maximum observed value (230).<sup>7</sup> We would then divide the difference between those two numbers (213) by the difference between the maximum observed value (230) and the minimum observed value (0.5). This yields a normalized “days to start a business” score of 0.928. After both of the two sub-components were transformed into a common scale, MCC calculated the Business Start-Up Index using the following formula:

Business Start-Up = 0.5(World Bank Days to Start a Business) + 0.5(World Bank Cost of Starting a Business)

In Mozambique’s case, its normalized Days to Start a Business score (0.928) is given a 50% weight and its Cost of Starting a Business score (0.495) is given a 50% weight. This yields a Business Start-Up index value of 0.712.

FY20 data refer to the 2020 values reported in the World Bank’s *Doing Business 2020* report and are labeled as 2019 on the scorecard. As better data become available, the World Bank makes backward revisions to its historical data.

In 2015, the World Bank’s *Doing Business Report* added a second city of analysis for Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, Russia, and the United States. As a result, these countries scores from 2014 to 2020 (displayed as 2013 to 2019 on the MCC scorecard) are an average across two cities. Due to this change, these countries’ data from 2014 to 2020 are not comparable to previous year’s data.

In 2017, the World Bank’s *Doing Business Report* disaggregated data for both Cost and Days to Start a Business by gender. MCC utilizes the simple average of the disaggregated data to represent scores for every country covered in the report. Because the World Bank historically revised its dataset with gender dis-aggregations, current year data is comparable to previous year’s data.

## **Access to Credit**

$$\text{MCC's Access to Credit Score} = [ 12 \times (\text{Depth of Credit}) + 8 \times (\text{Strength of Legal Rights}) ] / 2$$

*Source: World Bank*

This indicator measures the depth of available credit information and the effectiveness of collateral and bankruptcy laws in facilitating lending. It is a composite indicator made up of two indicators from the *Doing Business* report: *Depth of Credit Information* and *Strength of Legal Rights*. The depth of credit information index measures rules and practices affecting the coverage, scope and accessibility of credit information available through either a public credit registry or a private credit bureau. A score of 1 is assigned for each of 8 features of the public credit registry or private credit bureau (or both) and the total is summed for the final score. The strength of legal rights index measures the extent to which bankruptcy and collateral laws protect the rights of borrowers and lenders to facilitate lending. It contains 12 aspects related to legal rights in collateral law and two aspects in bankruptcy law. A score of 1 is assigned for each of the 12 features of the laws and the total is summed for the final score.

In order to give equal weight to each index, MCC multiplies the *Depth of Credit Information* score by 12 and the *Strength of Legal Rights* score by 8 and then takes the average.

In the *2015 Doing Business Report*, the World Bank made a number of methodological changes to the Access to Credit sub-indicators, including adding new and more challenging standards for a number of the sub-indicators. The World Bank therefore revised a number of countries' scores in accordance to the new standards. These revised scores were applied to the 2015 and 2014 data (reflected on MCC's scorecard as 2014 and 2013 data) but not to previous years. As a result, data from prior to 2014 is not comparable to data after 2014.

## Gender in the Economy

**MCC adds the number of legal restrictions against women on the indicators listed below.**

*Source: World Bank*

In FY20, MCC used a revised and expanded version of the previous indicator, utilizing 40 questions in total from the *Women, Business, and the Law* (WBL) initiative of the World Bank. The revised indicator measures the government's commitment to promoting gender equality by providing women and men with the same legal ability to interact with the private and public sector. MCC sums the number of restrictions and absence of protections against violence, which then represents a country's score on the scorecard. On this indicator, a lower score is better.

Specifically, MCC adds the number of restrictions from the Accessing Institutions, Using Property, Getting a Job, Going to Court, and Protecting Women from Violence sections of the report to calculate the Gender in the Economy score as noted below:

Countries receive 1/2 point or 1 point for each question that receives a “no” or “..” as the answer, unless otherwise noted below. Countries do not receive a point for “yes” or “N/A” answers, unless otherwise noted below.

## Accessing Institutions

- Can an unmarried woman obtain a national ID card in the same way as an unmarried man? (1/2 point)
- Can a married woman obtain a national ID card in the same way as a married man? (1/2 point)
- Can an unmarried woman travel outside the country in the same way as an unmarried man? (1/2 point)
- Can a married woman travel outside the country in the same way as a married man? (1/2 point)
- Can an unmarried woman travel outside her home in the same way as an unmarried man? (1/2 point)
- Can a married woman travel outside her home in the same way as a married man? (1/2 point)
- Can an unmarried woman get a job or pursue a trade or profession in the same way as an unmarried man? (1/2 point)
- Can a married woman get a job or pursue a trade or profession in the same way as a married man? (1/2 point)
- Can an unmarried woman sign a contract in the same way as an unmarried man? (1/2 point)
- Can a married woman sign a contract in the same way as a married man? (1/2 point)
- Can an unmarried woman register a business in the same way as an unmarried man? (1/2 point)
- Can a married woman register a business in the same way as a married man? (1/2 point)
- Can an unmarried woman open a bank account in the same way as an unmarried man? (1/2 point)
- Can a married woman open a bank account in the same way as a married man? (1/2 point)
- Can an unmarried woman choose where to live in the same way as an unmarried man? (1/2 point)
- Can a married woman choose where to live in the same way as a married man? (1/2 point)
- Can an unmarried woman confer citizenship to children in the same way as an unmarried man? (1/2 point)
- Can a married woman confer citizenship to children in the same way as a married man? (1/2 point)
- Can an unmarried woman be “head of household” in the same way as an unmarried man? (1/2 point)
- Can a married woman be “head of household” in the same way as a married man? (1/2 point)
- If customary law is recognized as a valid source of law under the constitution, is it invalid if it violates constitutional provisions on nondiscrimination or equality? (1 point)
- Do married couples jointly share legal responsibility for financially maintaining the family’s expenses? (1 point)

## Using Property

- Does the law provide for valuation of nonmonetary contributions? (1 point)
- Who administers marital property? (1 point for “husband”)

- Do unmarried men and unmarried women have equal ownership rights to property? (1/2 point)
- Do married men and married women have equal ownership rights to property? (1/2 point)
- Do sons and daughters have equal rights to inherit assets from their parents? (1 point)
- Do female and male surviving spouses have equal rights to inherit assets? (1 point)

## Going to Court

- Does a woman's testimony carry the same evidentiary weight in court as a man's? (1 point)

## Getting a Job

- Can nonpregnant and nonnursing women work the same night hours as men? (1 point)
- Can nonpregnant and nonnursing women do the same jobs as men? (1 point)

## Protecting Women from Violence

- Is there domestic violence legislation? (1 point)
- Are there clear criminal penalties for domestic violence? (1 point)
- Is there a specialized court or procedure for cases of domestic violence? (1 point)
- Is there legislation that specifically addresses sexual harassment? (1 point)
- Are there criminal penalties for sexual harassment in employment? (1 point)
- What is the legal age of marriage for girls? (1 point for ages < 18 or no data)
- Are there any exceptions to the legal age of marriage? (1 point for "yes")
- Does the law prohibit or invalidate child or early marriage? (1 point)
- Are there penalties in the law for authorizing or knowingly entering into child or early marriage? (1 point)

In FY20, MCC used 2018 data from the *Women, Business, and the Law* website. As better data become available, the World Bank makes backward revisions to its historical data.

*In FY19, MCC implemented a revised and expanded Gender in the Economy indicator. Due to the change in methodology, FY19 scores are not comparable to previous year's scores.*

## Land Rights and Access

MCC's Land Rights and Access Score = [ 0.5 x Normalized IFAD ] + [ 0.25 x (Normalized World Bank Time) ] + [ 0.25 x (Normalized World Bank Cost) ]

*Source: IFAD, World Bank*

This index draws on 2018 "Access to Land" data from the International Fund for Agricultural

Development (IFAD) and 2020 data from the World Bank on the time and cost of property registration. Country scores are reported on the Scorecards as 2020 data. When IFAD data from the current year is missing, data from the most recent year is used going back until 2014. If a country does not have IFAD data for any year from 2014-2018, the indicator is considered missing.

Countries that received a “no practice” score on the World Bank’s Time to Register Property indicator were assigned the maximum observed value (i.e. the worst possible score) plus one additional day. Countries that received a “no practice” score on the Cost of Registering Property indicator were assigned the maximum observed value (i.e. the worst possible score) plus one additional percentage point of the property value.<sup>8</sup>

Since each of the three sub-components of this index have different scales, MCC created a common scale for each of the indicators by normalizing them. Please see equations below. Due to the fact that high scores on the World Bank indicators represent low levels of performance and high scores on the IFAD indicator represents high levels of performance, it was also necessary to invert either the IFAD normalized scale or the World Bank normalized scales. MCC chose to invert the IFAD scale by subtracting each country’s normalized value from 1.

*MCC Methodology to Normalize IFAD and World Bank Data:*

- *Normalized IFAD* =  $1 - (\text{Maximum observed value} - \text{Country X's raw score}) \div (\text{Maximum observed value} - \text{Minimum observed value})$
- *Normalized Days (or Cost) to Register a Property* =  $(\text{Maximum observed value} - \text{Country X's raw score}) \div (\text{Maximum observed value} - \text{Minimum observed value})$

For example, to calculate Moldova’s normalized score on the World Bank Days to Register Property indicator, we would first subtract the maximum observed value (513) from Moldova’s raw score (5.5). We would then divide the difference between those two numbers (507.5) by the difference between the maximum observed value (513) and the minimum observed value (1). This yields a normalized “days to register property” score of 0.991. After each of the three sub-components was transformed into a common scale, MCC calculated the Land Rights and Access Index using the following formula:

**MCC’s Land Rights and Access Score = [ 0.5 x Normalized IFAD ] + [ 0.25 x (Normalized World Bank Time) ] + [ 0.25 x (Normalized World Bank Cost) ]**

In Moldova’s case, its normalized 2018 IFAD score (1) is given a 50% weight, its 2020 World Bank Time to Register Property score is given a 25% weight (0.9912), and its 2020 World Bank Cost of Registering Property score (0.9643) is given a 25% weight. This yields a Land Rights and Access index value of 0.989.

FY20 data on the time and cost of registering property are drawn from the 2020 data in the World Bank’s *Doing Business 2020* Report. FY20 index values also rely upon the most recent year available from IFAD’s “Access to Land” data. To match these two datasets, two procedures are performed. First, if IFAD data for a given year is missing, the most recent year of available data is used. Then each year of IFAD data is matched to a World Bank Data labeled as being two years in the future. So, if a country has IFAD data

for 2015 but not 2016, the 2015 IFAD data is matched with the 2017 World Bank data and listed on the scorecard as 2017 data. The 2015 IFAD data is used in place of the missing 2016 data and then matched with the 2018 World Bank data and listed on the scorecard as 2018 data. As better data become available, the World Bank makes backward revisions to its historical data. No value is assigned if data from one source exists for a given year, but data from the other source exists only for years after the year of interest.

In 2015, The World Bank's *Doing Business Report* added a second city of analysis for Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, Russia, and the United States. As a result, these countries scores for 2014 and 2015 (displayed as 2013 and 2014 on the MCC scorecard) are an average across two cities. Due to this change, these countries data for 2014 and 2015 are not comparable to previous year's data.

## Note on Calculating Medians

In calculating medians for indicators, MCC does not include scores of countries which do not report data (earning an N/A score) for median or percentile rank calculations. For example, if there are 55 countries in the candidate pool and only 50 report data, MCC uses only the 50 reporting data in calculating the median and percentile ranks. MCC calculates separate medians for each scorecard income pool. For all indicators when calculating percentiles, if multiple countries are tied for the maximum, their percentile ranks are set to 100%. When percentile ranks are used to determine passage, if multiple countries are tied for the minimum, their percentile ranks are set to 0% and if multiple countries are tied for the median, their percentile ranks are set to 50%. When scores instead of percentiles are used to determine passage (as in the case of Political Rights, Civil Liberties, Inflation, and, for countries with GNI per capita between \$1,926 and \$3,995 immunization rate) the median is not forced to the 50th percentile, nor is the minimum forced to the 0th percentile, but the maximum is still forced to the 100th.

## Endnotes

1. And be considered an Independent State by the US Department of State.
2. Prior to 2006, the World Bank released data every two years (1996, 1998, 2000, 2002 and 2004). With the 2006 release, the World Bank moved to an annual reporting cycle and provided additional historical data for 2003 and 2005.
3. Missing data points on the historic graphs may either denote data points that are off the scale of the chart, or years in which data is missing. If there is no data for the past six years, MCC indicates this with an “n/a”.
4. Girls Primary Education Enrolment is used to assess the scorecard income pool of countries with GNI per capita less than or equal to \$1,925 in FY20.
5. Girls Secondary Education Enrolment is used to assess the scorecard income pool of countries with GNI per capita between \$1,926 and \$3,995.
6. The Index of Economic Freedom is typically released in January, and before FY09, MCC had relied on the most recent of these data for its Trade Policy indicator. However, beginning in September of 2008, the Heritage Foundation has released a preview of the Trade Freedom scores for the upcoming Index of Economic Freedom in early November. The FY20 Trade Policy scores come from the *2020 Index of Economic Freedom*.
7. The minimum observed value is the minimum of all 189 countries covered by the *Doing Business2020* report. The maximum observed value is the maximum of all 189 countries covered by the *Doing Business 2020* report plus one (day or percentage point) to account for the “no practice” values.
8. As described in the *Doing Business* in 2007 report, “[w]hen an economy has no laws or regulations covering a specific area — for example bankruptcy — it receives a ‘no practice’ mark. Similarly, if regulation exists but is never used in practice, or if a competing regulation prohibits such practice, the economy receives a ‘no practice’ mark. This puts it at the bottom of the ranking” (World Bank 2006: 74).